

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed****1.1. Name of the Data, data collection Project, or data-producing Program:**

Coastal Massachusetts Submerged Aquatic Beds 1994-1996 Substrate

**1.2. Summary description of the data:**

The Coastal Change Analysis Program (C-CAP) at NOAA Office for Coastal Management partnered with The Massachusetts Department of Environmental Protection Wetlands Conservancy Program (DEP-WCP) and Office of Coastal Zone Management (CZM) to produce a digital coverage of submerged aquatic vegetation, primarily eelgrass (*Zostera marina*) along the Atlantic coast of Massachusetts. Conventional color metric aerial photography at a scale of 1:20,000 was acquired from 1994-1996 according to stringent parameters detailed in the C-CAP protocol (<https://coast.noaa.gov/crs/lca/ccap.html>). The photography was photointerpreted by DEP-WCP using a biocular stereoscope (Cartographic Engineering Modular Stereoscope Model SB 190). Polygons of eelgrass were delineated onto acetate overlays affixed to each photograph. Extensive fieldwork was conducted to develop signatures and gather surface level data where the presence or extent of habitat was not apparent from the photography. An underwater video camera was utilized in this effort. The aerial photos, with the interpreted acetates attached, were scanned using a photogrammetric quality scanner (AGFA Horizon Plus) at a resolution of 600 dpi resulting in a pixel resolution of .85 meters. The resulting image file was rectified (bilinear 2nd order) by C-CAP to 1 meter black and white and color digital orthophotos supplied by CZM. The polygon delineation from the rectified image was then digitized onscreen. In addition, a point file was generated based on field-verified sites as well as all occurrences of widgeon grass (*Ruppia maritima*) and algae. The rectification and digitization was completed utilizing the ERDAS Imagine software package. The benthic data is classified according to the System for Classification of Habitats in Estuarine and Marine Environments (SCHEME). This system is fully described in "Development of a System for Classification of Habitats in Estuarine and Marine Environments (SCHEME) for Florida, Report to U.S. EPA - Gulf of Mexico Program, Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute. Review Draft 12/04/02." The polygon vector coverage was accuracy assessed by C-CAP and DEP-WCP in July 1997 and September 1998. The assessment was based on random points generated within the polygon boundaries. Navigation to each point in

the field was accomplished using real time differential GPS. The underwater video camera was used to verify the presence of the mapped feature at the random point. The accuracy of the mapped grass was 85.4 % (175 of 205 sites mapped correct).

Original contact information:

Contact Org: NOAA Office for Coastal Management

Phone: 843-740-1202

Email: coastal.info@noaa.gov

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

1994 to 1996

**1.5. Actual or planned geographic coverage of the data:**

W: -71.1545, E: -69.9244, N: 42.683, S: 41.2596

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*

Map (digital)

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

**2. Point of Contact for this Data Management Plan (author or maintainer)**

**2.1. Name:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.4. E-mail address:**

coastal.info@noaa.gov

**2.5. Phone number:**

(843) 740-1202

### 3. Responsible Party for Data Management

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

#### 3.1. Name:

#### 3.2. Title:

Data Steward

### 4. Resources

*Programs must identify resources within their own budget for managing the data they produce.*

#### 4.1. Have resources for management of these data been identified?

#### 4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

### 5. Data Lineage and Quality

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

#### 5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

*(describe or provide URL of description):*

Process Steps:

- 1997-01-01 00:00:00 - See abstract.
- 2015-01-01 00:00:00 - The data were converted from a single ESRI polygon shapefile classified according to the System for Classifying Habitats in Estuarine and Marine Environments (SCHEME) to the Coastal and Marine Ecological Classification Standard (CMECS) 2012 format (which can be found at <https://coast.noaa.gov/digitalcoast/tools/cmecs-crosswalk>) which produces separate geofom, substrate, and substrate feature layers from the original input benthic habitat dataset. This substrate feature layer contains CMECS substrate component attributes where an "Equal" or "Nearly Equal" SCHEME value was present in the original data. Polygons for which no substrate information was present have been removed. No other changes to the original polygon boundaries or any other alterations of the original SCHEME data were made during this process.

#### 5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

**5.2. Quality control procedures employed (describe or provide URL of description):****6. Data Documentation**

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

**6.2. Name of organization or facility providing metadata hosting:**

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:****6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/47901>

**6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: [https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\\_PD-Data\\_Documentation\\_v1.pdf](https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf)

**7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

**7.2. Name of organization of facility providing data access:**

NOAA Office for Coastal Management (NOAA/OCM)

**7.2.1. If data hosting service is needed, please indicate:**

**7.2.2. URL of data access service, if known:**

[ftp://ftp.coast.noaa.gov/pub/benthic/Benthic\\_Cover\\_Data/MA\\_coast.zip](ftp://ftp.coast.noaa.gov/pub/benthic/Benthic_Cover_Data/MA_coast.zip)

**7.3. Data access methods or services offered:**

**7.4. Approximate delay between data collection and dissemination:**

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

**8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

**8.1.1. If World Data Center or Other, specify:**

**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

**8.2. Data storage facility prior to being sent to an archive facility (if any):**

Office for Coastal Management - Charleston, SC

**8.3. Approximate delay between data collection and submission to an archive facility:**

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

## **9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*